KARAN PATEL

Mechatronics Engineer

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🏠 Anand, Gujarat

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ABOUT ME

An ardent engineer with passion in Robotics and Automation and a practitioner of machine learning, embedded systems, circuit design, IoT, Robotic Process Automation and sensor integration.

SKILLS & ABILITIES | Link

C/C++/Python

Microcontroller

PLC – Siemens, Mitsubishi

Embedded Systems

Machine Learning

Image Processing

Robotics Process Automation

Control System

Robot Kinematics

EDUCATION

Bachelor in Mechatronics Engineering
G H Patel College of Engineering & Technology, Anand, Gujarat
8.53 CPI (First Class with Distinction)

Higher Secondary
C V M Higher Secondary Education Complex (Science Stream)
78% - Percentile

Secondary
I B Patel English Medium School
93% - percentile

EXPERIENCE

Process Engineer | Godrej and Boyce | *Dec '20 - Present*

Worked on projects like Godrej Smart Scanner. Currently, working under projects that are Artificial Intelligence centred and includes control systems, PLCs and Actuators.

Intern | Oswal Machinery Limited | *Aug '20 – Sept '20*

Worked as an intern in assembly of Elevators and Feeders. Played role in design as well as production of Cranes and learnt about the processing of customized design data.

Intern | Elecon Engineering Co. Ltd. | *Jun '18 – Jul '18*

Was a part of Elecon's Gear Manufacturing Unit. Assisted in deciding the technical parameters of a gear as per the requirements from the orders.

Intern | Precise Automation | *Jan '18 – Feb '18*

Assisted in making of Electrical distributor panels like PLC Control Panel and Extrusion Machine Panel. Studied both the drawings and components of wide range of customized control panels.

Educator | Bachpan NGO, Anand | *Sept '16 – Oct '17*

Served as an educator for a year and taught students of 10th to 12th grade. Organized student centric events and rasied funds for those in need.

Head Coordinator | IMAZE '20

Was appointed as one of the four head Coordinators in the Annual Technical Festival of College, i.e., IMAZE in year 2020. Departments like logistics and arrangements, a team of 30 students was led by me.

Logistics Coordinator | IMAZE '19

Was given the responsibility of Logistics department, in the Annual Technical Festival of college in year 2019. Finance and the Maintenance of all the equipment was handled by me.

Chairman | IEDC | 2017-2019

Led Innovation and Entrepreneurship Development Cell of GCET for two years and also organized national level conference of SSIP.

Technical Head | Prarambh Club | 2019

Played a role of technical head in events under Prarambh club for a year.

Member | Minion Robotic Club | 2018

Was a member of Minion Robotic Club in 2018, made robots of size 120lbs and took part in National Robotic competitions in IITs around India.

Student Head | INDRA | 2017

Recruited as Student Head for the India's Next Development by Renewable Energy.

PUBLICATION | [Link](#)

'Smart Dustbin – Smart Bins for Smart Cities', in Scopus Indexed Journal – *'International Journal of Innovative Technology & Exploring Engineering' (IJITEE).*

ISSN: 2278-3075

COURSES

Autodesk AutoCAD

Jupyter Notebook

Electrical Device Maintenance

UIPath

Frontend Web Development

Django

Machine Learning

Image Processing

Keras - Tensorflow

CHARACTERISTICS

Persistent
Earnest
Inquisitive
Optimistic towards feedback
Process oriented

PROJECTS | karanpatel.herokuapp.com/projects

Godrej Smart Scanner | *2021*

A software that detects text from moving objects and compare with the barcode value and sends alert messages and is still working in the industry.

Humanoid Robot | *2020*

Human sized robot integrated with AI, 16 servo motors and a vision sensor for detecting objects and paths.

Portfolio Website | *2020*

A dynamic website of my own portfolio and project related guiding blogs is constructed using Django jinja and HTML.

Voice Controlled PC Assistant | *2020*

Prototyped a voice-controlled assistant which can control all the features of PCs and Laptops sensing your voice commands.

Gesture Controlled PC Assistant | *2019*

Modeled a hand and face gestured PC control interface.

Smart Mirror with Integrated Alexa | *2019*

Converted a mirror into smart interactive mirror using a microcontroller, image recognition and Google app, which can be used as an assistant for your day.

Line follower using PID controller | *2019*

Implemented PID tuning for required results in line follower to precisely configure the line and follow the path accordingly.

Digital Dustbin | *2017*

Modeled a smart dustbin, which encourages people to use dustbins for garbage disposal for which they will be awarded points.

Aruco Detection | 2018

Unity project that fits any 3d object into the real world using Augmented reality.

ACHIEVEMENTS

1) *State funded project for the final year and got selected to*

present in various competitions | Humanoid Robot

2) *19th Rank over Gujarat state in Mathematics | International Mathematics Olympiad*

3) *7th Rank in State level Innovative startup | Startup India Yantra*

4) *Stood 3rd in National Level robot competition | IIT Bombay*

5) *3rd Rank all over Gujarat University in Mechatronics | GTU*

6) *30+ victories in competitions like Robo-Race, Robo-Wars, Line-Following Robots, Pick & Place Robots*
7) *Represented our Gujarat State in Football, Hockey and Handball.*